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CHRONIC ARTHRITIS—ITS TREATMENT*

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I

THE treatment of chronic arthritis has always been handicapped by lack of more definite knowledge concerning the nature of the disease. We are not only without a specific standardized therapy; we are without even an understanding of the origin and nature of this prevalent and baffling condition. In spite of these handicaps, however, the physician must treat the arthritic patient. He must treat him as well as he knows how. He must approach the disease with an open mind, not riding a hobby, and with no fixed prejudices against the therapeutic theories of others.

CLASSIFICATION OF CHRONIC ARTHRITIS

At the outset of this problem, it is necessary for me to refresh your memories concerning the classification of chronic arthritis now in general vogue. Passing over the specific forms of arthritis, we differentiate ordinary chronic arthritis into two main types: hypertrophic or osteoarthritis, and rheumatoid or infectious arthritis. Practically all authorities on arthritis are agreed on the rationale of this classification. To many students of arthritis, these two forms of the disease appear as entirely distinct and separate clinical entities.

HYPERTROPHIC OR OSTEOARTHRITIS

Hypertrophic arthritis is a disease of middle-aged and elderly people. It is characterized by thinning and fibrillation of the articular cartilage and proliferative changes in the bone, especially around the margins of the joint, where bony spurs and exostoses develop and produce a widening of the articular surface. As time goes on the cartilage wears off entirely, and the underlying bone is exposed. Presumably because of pressure, the exposed bone becomes dense and highly polished, and often functions fairly well in place of the cartilage.

It is quite possible for osteoarthritis to exist in an advanced form without producing symptoms. Autopsies on elderly patients will usually reveal more or less osteoarthritis of the knees, hips, vertebrae and phalangeal joints. Symptoms of discomfort and pain appear when a joint which is the seat of hypertrophic arthritis is subjected to acute or chronic trauma. The spurs and exostoses rub against the synovial membrane and set up inflammation. Hypertrophic arthritis, however, is not essentially an inflammatory process, but a degenerative process like arteriosclerosis or gray hair, and quite possibly results from an inadequate blood supply to the articular surface.

TREATMENT OF HYPERTROPHIC ARTHRITIS

The rational treatment of hypertrophic arthritis consists of reducing the trauma incidental to use of the joint, and increasing the local circulation. The measures most frequently employed are:

1. *Rest.*—Rest need not be absolute immobilization, but much less use of the joint than normal. This applies particularly to the weight-bearing joints, where the mere act of walking or climbing stairs often keeps up irritation in the worn-out structures.

2. *Reduction of Weight.*—Rest, of course, eliminates a certain amount of trauma, but further steps can be taken in this direction by reducing the weight of obese patients and thus again reducing the strain on weight-bearing joints. The correction of a faulty posture is another procedure which will often reduce the strain on a hypertrophic joint and thereby relieve the patient of pain and discomfort. In patients who are overweight because of a low metabolism, thyroid extract can be administered with great benefit. In those whose metabolism is normal, more dependence must be placed on a low calory diet, consisting chiefly of green vegetables and fruits. Weight reduction in these patients is often difficult because they are unable to take the normal amount of exercise.

3. *Physiotherapy.*—The various forms of physiotherapy consisting chiefly of infra-red light, diathermy and baking apparatus, are very useful in hypertrophic arthritis, particularly in those cases where only one or two joints are involved.

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Hypertrophic arthritis is particularly common in the knees and lumbar spine, and in such locations diathermy can be used with great benefit.

4. *Hydrotherapy.*—Hydrotherapy is one of the oldest forms of treatment for rheumatic disease. Baths were used in ancient Rome for the treatment of rheumatism, and some of the old Roman baths at Bath, Aix-les-Bains and other spas are still in existence. One does not have to go to a spa, however, to enjoy the benefits of hydrotherapy. A good hot tub of water with the temperature ranging from 104 to 106 degrees Fahrenheit, is an excellent substitute for the natural hot springs, and is particularly efficacious if followed by a sweat.

5. *Drug Therapy.*—The pain and discomfort of hypertrophic arthritis are best relieved by aspirin or some of the other salicylates. We have also used potassium iodid, or hydriodic acid, with considerable benefit in some of these patients.

So much, then for the treatment of hypertrophic arthritis. We can not hope by any form of therapy to eradicate the bony changes which have occurred in these joints; but we can do a great deal to relieve the patient of his pains and aches, especially if he will give wholehearted coöperation.

RHEUMATOID OR INFECTIOUS ARTHRITIS

We have said that hypertrophic arthritis is a degenerative process. Rheumatoid arthritis occurs more frequently in young people and is a truly inflammatory process. It is primarily an inflammation of the synovial membrane and other soft parts of the joint. Allison and Ghormley[1] have shown that rheumatoid arthritis has a specific micropathology. In addition to the chronic granulation tissue which occurs in the synovial membrane, and which is rather characteristic, there is a more specific lesion consisting of clumps of lymphoid cells which are not encountered in other forms of chronic arthritis. We may define rheumatoid or infectious arthritis as a chronic inflammation of the joints characterized in the early stages by pain and swelling of the joints, and in the later stages by ankylosis and deformity. The hypertrophic joint may be enlarged, but there is no heat, swelling or ankylosis. The badge of the rheumatoid joint is soft tissue swelling.

TREATMENT OF RHEUMATOID ARTHRITIS VARIES IN MEDICAL CENTERS

As I have already said, the treatment of rheumatoid arthritis suffers from lack of a specific, and of no standardized regimen such as exists, for example, in the therapy of tuberculosis or syphilis. Indeed, the character of the treatment which one receives for rheumatoid arthritis depends very largely on where he goes to get the treatment. For example, at Tucson, climate, sunlight and baths are emphasized. In some clinics, the doctrines of Rosenow are largely followed, and great stress is laid on focal infection. In some of these latter clinics, focal infection therapy is carried to an extreme. For example, every devitalized tooth is extracted, even though x-rays fail to reveal definite root abscesses. At the Mayo Clinic, Rowntree and Adson[2] are performing sympathectomy of the cervical and lumbar ganglions in selected cases of rheumatoid arthritis.

If the patient comes further east and stops at Rochester, New York, he will pretty surely be treated by hyperthermia; that is, the induction of artificial fever by diathermy. This method of therapy aims to achieve what typhoid vaccine achieves without the discomfort of a chill. However, the process of being heated up to a temperature of 105 degrees Fahrenheit, is not altogether pleasant, and I suspect that many patients would prefer the foreign protein reaction of typhoid vaccine to the artificial production of fever by hyperthermia. Furthermore, I am not yet convinced that hyperthermia by diathermy is as effective as the thermal reactions of typhoid vaccine.

If our patient travels still further east and arrives in Boston, he will encounter a distinguished group of orthopedic surgeons whose method of approach to the arthritis problem is naturally somewhat different from that of the medical men. Posture, massage and exercises are stressed, and in many cases prolonged rest in bed is insisted upon. The Boston school are particularly skillful in the handling of advanced and neglected cases of rheumatoid arthritis, where the ankyloses and deformities require expert orthopedic procedures. Synovectomies, arthroplasties and arthrodeses are resorted to when these operations are indicated.

In Toronto, Fletcher[3] and his co-workers have stressed the rôle of the large intestine in the etiology of rheumatoid and hypertrophic arthritis, and their method of treatment is based primarily on the correction of a tortuous and atonic colon. Fletcher has found that this type of colon responds well to vitamin B therapy, and therefore advises the use of vitamin B in the form of yeast, or some other such preparation, and by this treatment he claims that the colon tends to take on once more its normal shape and contour. Fletcher goes further and advises the use of the other common vitamins, A, C and D. In the experience of the writer, the use of vitamin therapy often has a very happy effect in improving the general health of the patient long before any improvement is noticeable in the joints themselves. For this reason I believe that vitamin therapy is an important factor in the treatment of rheumatoid arthritis.

In Philadelphia the physiological method of approach to the arthritis problem has been employed by Pemberton.[4] Pemberton has always been interested in the dietary treatment of arthritis, and has insisted for years that the arthritic patient does best on a low carbohydrate diet. Pemberton is also enthusiastic over the use of physiotherapy in the treatment of rheumatoid arthritis.

In New York, rheumatoid arthritis is generally looked upon as a chronic infection. This attitude has been the natural result of the bacteriological studies on the disease by Richards,[5] Burbank,[6]

Dawson, Olmstead and Boots,[7] Cecil, Nicholls and Stainsby[8] and others. These investigators all believe that rheumatoid arthritis is a streptococcal infection. R. G. Snyder,[9] who is chief of the arthritis clinic at the New York Hospital for the Ruptured and Crippled, is an ardent advocate of colonic irrigations for rheumatoid arthritis.

The spa treatment of arthritis finds expression at such resorts as Hot Springs, Arkansas, Palm Springs, California, and White Sulphur Springs or Hot Springs, Virginia. The spa treatment of rheumatoid arthritis has never been so popular in this country, however, as it is in Europe or the British Isles. In Europe the spa treatment has flourished for centuries and consists chiefly of hot water baths, carbonated baths and mud baths. At Aix-les-Bains the cure consists chiefly of hot sulphur baths. At Dax or Pistyani mud baths are given, and they are claimed to have outstanding therapeutic value.

In this connection, something should be said concerning the use of gold salts in the treatment of rheumatoid arthritis. The use of gold salts for this disease has been confined almost exclusively to France and Germany, and more recently the gold treatment has been taken up in England. Forestier[10] at Aix has been a strong advocate of the gold cure, while in England Slot and Deville[11] have claimed a high percentage of cures by the use of gold thiocyanate in oily suspension.

I have tried to show in this very rapid journey about the United States and Europe how the treatment of rheumatoid arthritis varies in different medical centers.

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(To be continued)

ACUTE INTESTINAL OBSTRUCTION*

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DISCUSSION *by Rea Smith, M. D., Los Angeles; George D. Brown, M. D., Pomona.*

THE high mortality rate in acute intestinal obstruction preëmpts any apology for discussing the subject. No attempt will be made to review the abundant literature, or to dwell upon the disputed question as to the origin or nature of the toxin which tends to lead rapidly to the death of the patient. All of this information has been published, and is accessible to anyone interested.

TYPES OF ACUTE INTESTINAL OBSTRUCTION

Acute obstruction must be divided into the functional or paralytic ilius and mechanical blockage. The mechanical type must further be divided into high and low obstruction, from the standpoint of the rapidity of the development of toxemia. Again, there is a difference in the clinical picture between the obturator obstruction and the strangulation type at the same level.

In the paralytic type, the great abdominal distention, apathetic facies, toxemia, rapid pulse, absence of pain with an accumulation of liquid in the stomach, failure to obtain results with enemas, lack of peristalsis, leads one to the diagnosis. In this type the cause may be any overwhelming toxemia or trauma. It occurs not infrequently in pneumonia. I have seen it in a crushing injury of the thigh, and postmortem examination proved the peritoneum to be without injury or inflammation. It most commonly occurs, however, in peritonitis, chest traumas and following formidable intra-abdominal procedures.

Without attempting to detail all the causes of acute mechanical obstruction, suffice it to say that hernia, postoperative adhesions and volvulus are the most common causes of obstruction in the small bowel, while cancer holds first place in the large intestine.

SYMPTOMS OF COMPLETE MECHANICAL OBSTRUCTION

The symptomatology of complete mechanical obstruction is so definite that the diagnosis is not difficult, unless one attempts unjustifiably to specify the exact cause, in some cases, of the obstruction.

Acute obstruction is always ushered in by paroxysmal attacks of pain, usually about the umbilicus, which come in increasing severity and at shorter intervals. If the obstruction is high, there is vomiting early; if, however, it is in the low ilium, or large intestine, vomiting may be absent until the late stages. At the onset the patient may, and often does, have a stool, because the irritation at the point of obstruction starts a wave of peristalsis in both directions. With the first enema, a small amount of gas and fecal matter may return; but upon repetition of the enemas, the return is clear and of great importance, without gas. Except in new growths and visible or palpable hernia, there is usually an operative scar on the patient's abdomen. The temperature is generally not elevated, and often is subnormal. Examination of the abdomen shows distention only if the obstruction is low in the canal and of several hours standing. There usually is no mass or localized tenderness, unless the intestines are attached to the abdominal wall, or the obstruction is caused by an inflammatory process. The urine is normal except in neglected cases, and there is a polynuclear leukocytosis in the strangulated type. The pulse rate soon increases, and the palpable apex of the systolic curve is poorly sustained. The patient presents an anxious facies, soon becomes toxic, and is thoroughly impressed that there is something radically wrong with his abdomen; and it seldom requires any persuading for him to have an operation. Oscultation will detect the typical metallic tinkle heard only in obstruction with fluid and gas in the obstructed loops of intestine. This picture applies more to acute obstruction of the strangulating type of the small intestine.

If the obstruction is in the large intestine, or of the obturator type, the pain will not be so severe, and other symptoms will be slower to develop, which will allow more time to safely arrive at the proper diagnosis.

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